

Inventor: John T. Moore

Title: Methods of Forming Dielectric Materials and Methods of Processing
Semiconductor Substrates

Assignee: Micron Technology, Inc.

INFORMATION DISCLOSURE STATEMENT

PURSUANT TO 37 C.F.R. §§ 1.56, 1.97 AND 1.98

In compliance with 37 C.F.R. §§ 1.56, 1.97 and 1.98, your attention is directed to the United States patents and other references listed on the attached Form PTO-1449. No admission is made regarding whether all the submitted references are prior art.

The listed references were cited by, or submitted to, the Office in the parent, co-pending application of the above-identified application. The above-identified application is a continuation application of co-pending application Serial No. 09/602,381, filed June 22, 2000. Such prior disclosure is sufficient for the above-identified application as far as copies of the references are concerned. 37 C.F.R. § 1.98(d) and MPEP § 609(2).

Citation of these references is respectfully requested.

Respectfully submitted,

Dated:

November 3, 2003

By:

Jennifer J. Taylor
Jennifer J. Taylor, Ph.D.
Reg. No. 48,711

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. M122-2438	SERIAL NO. PRIORITY 09/602,381		
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Micron Technology, Inc.			
				FILING DATE PRIORITY June 22, 2000	GROUP PRIORITY 2815		
U.S. PATENT DOCUMENTS							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	5,032,545	07-1991	Doan et al.			
	AB	5,436,481	07-1995	Egawa et al.			
	AC	5,378,645	01-1995	Inoue et al.			
	AD	5,258,333	11-1993	Shappir et al.			
	AE	5,518,946	05-1996	Kuroda			
	AF	5,445,999	08-1995	Thakur et al.			
	AG	5,382,533	01-1995	Ahmad et al.			
	AH	5,663,077	09-1997	Adachi et al.			
	AI	5,026,574	06-1991	Economu et al.			
	AJ	5,612,558	03-1997	Harshfield			
	AK	5,719,083	02-1998	Komatsu			
	AL	5,760,475	06-1998	Cronin			
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AM	WO 96/39713	12-1996	PCT			
	AN						
	AO						
	AP						
	AQ						
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	AR		Wolf, S., "Silicon Processing for the VLSI Era", Lattice Press 1990, Vol. 2, pp. 212-213.				
	AS		Wolf, S., "Silicon Processing for the VLSI Era", Lattice Press 1990, Vol. 2, pp. 188-189, 194-195, 609-614.				
	AT		Ko, L. et al., "The Effect of Nitrogen Incorporation into the Gate Oxide by Using Shallow Implantation of Nitrogen and Drive-In Process", IEEE 1996, pp. 32-35.				
EXAMINER				DATE CONSIDERED			
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>							

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2438	SERIAL NO. PRIORITY 09/602,381	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Micron Technology, Inc.		
				FILING DATE PRIORITY June 22, 2000	GROUP PRIORITY 2815	
U.S. PATENT DOCUMENTS						
*Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	5,834,372	11-1998	Lee		
	AB	5,619,057	04-1997	Komatsu		
	AC	5,633,036	05-1997	Seebauer et al.		
	AD	6,054,396	04-2000	Doan		
	AE	6,174,821	01-2001	Doan		
	AF	5,939,750	08-1999	Early		
	AG	5,254,489	10-1993	Nakata		
	AH	5,464,792	11-1995	Tseng et al.		
	AI	5,620,908	04-1997	Inoh et al.		
	AJ	5,716,864	02-1998	Abe		
	AK	5,972,783	10-1999	Arai et al.		
	AL	6,093,661	07-2000	Trivedi et al.		
FOREIGN PATENT DOCUMENTS						
	Document Number	Date	Country	Class	Subclass	Translation
						Yes No
	AM					
	AN					
	AO					
	AP					
	AQ					
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)						
	AR	Doyle, B. et al., "Simultaneous Growth of Different Thickness Gate Oxides in Silicon CMOS Processing", IEEE Vol. 16 (7), July 1995, pp. 301-302.				
	AS	Kuroi, T. et al., "The Effects of Nitrogen Implantation Into P+Poly-Silicon Gate on Gate Oxide Properties", 1994 Sympos. on VLSI Technology Digest of Technical Papers, IEEE 1994, pp. 107-108.				
	AT	Liu, C.T. et al., "Multiple Gate Oxide Thickness for 2GHz System-on-a-Chip Technologies", IEEE 1998, pp. 589-592.				
EXAMINER				DATE CONSIDERED		
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>						

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. M122-2438	SERIAL NO. PRIORITY 09/602,381
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Micron Technology, Inc.	
				FILING DATE PRIORITY June 22, 2000	GROUP PRIORITY 2815

U.S. PATENT DOCUMENTS							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	5,994,749	11-1999	Oda			
	AB	5,674,788	10-1997	Wristers et al.			
	AC	5,596,218	01-1997	Soleimani et al.			
	AD	5,960,302	09-1999	Ma et al.			
	AE	6,207,532 B1	03-2001	Lin et al.			
	AF	6,114,203	09-2000	Ghidini et al.			
	AG	6,110,842	08-2000	Okuno et al.			
	AH	6,091,110	07-2000	Hebert et al.			
	AI	5,330,920	07-1994	Soleimani et al.			
	AJ	6,140,187	10-2000	DeBusk et al.			
	AK	6,197,701	03-2001	Shue et al.			
	AL	6,091,109	07-2000	Hasegawa			

FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AM							
	AN							
	AO							
	AP							
	AQ							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
	AR		
	AS		
	AT		

EXAMINER	DATE CONSIDERED
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. M122-2438	SERIAL NO. PRIORITY 09/602,381
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Micron Technology, Inc.	
				FILING DATE PRIORITY June 22, 2000	GROUP PRIORITY 2815

U.S. PATENT DOCUMENTS							
*Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
	AA	6,080,682	06-2000	Ibok			
	AB	5,685,949	11-1997	Yashima			
	AC	6,268,296 B1	07-2001	Misium et al.			
	AD	6,232,244 B1	05-2001	Ibok			
	AE	6,255,703 B1	07-2001	Hause et al.			
	AF	6,274,442 B1	08-2001	Gardner et al.			
	AG	6,228,701 B1	05-2001	Dehm et al.			
	AH	6,136,636	10-2000	Wu			
	AI	6,033,998	03-2000	Aronowitz et al.			
	AJ	6,057,220	05-2000	Ajmera et al.			
	AK	6,087,229	07-2000	Aronowitz et al.			
	AL	5,998,253	12-1999	Loh et al.			

FOREIGN PATENT DOCUMENTS							
	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	AM						
	AN						
	AO						
	AP						
	AQ						

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
	AR		
	AS		
	AT		

EXAMINER	DATE CONSIDERED
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2438	SERIAL NO. PRIORITY 09/602,381		
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Micron Technology, Inc.			
				FILING DATE PRIORITY June 22, 2000		GROUP PRIORITY 2815	
U.S. PATENT DOCUMENTS							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	5,763,922	06-1998	Chau			
	AB	6,225,167 B1	05-2001	Yu et al.			
	AC	5,960,289	09-1999	Tsui et al.			
	AD	5,972,800	10-1999	Hasegawa			
	AE	6,146,948	11-2000	Wu et al.			
	AF	6,362,085	03-2002	Yu et al.			
	AG	5,164,331	11-1992	Lin et al.			
	AH	5,318,924	06-1994	Lin et al.			
	AI	5,449,631	09-1995	Giewont et al.			
	AJ	5,518,958	05-1996	Giewont et al.			
	AK	6,201,303	03-2001	Ngo et al.			
	AL	6,399,445	06-2002	Hattangady et al.			
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AM						
	AN						
	AO						
	AP						
	AQ						
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	AR						
	AS						
	AT						
EXAMINER				DATE CONSIDERED			
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. M122-2438	SERIAL NO. PRIORITY 09/602,381		
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Micron Technology, Inc.			
				FILING DATE PRIORITY June 22, 2000	GROUP PRIORITY 2815		
U.S. PATENT DOCUMENTS							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	6,331,492 B2	12-2001	Misium et al.			
	AB	6,080,629	06-2000	Gardner et al.			
	AC	5,970,345	10-1999	Hattangady et al.			
	AD	5,885,877	03-1999	Gardner et al.			
	AE	6,323,114 B1	11-2001	Hattangady et al.			
	AF	6,184,110 B1	02-2001	Ono et al.			
	AG	5,837,598	11-1998	Aronowitz et al.			
	AH	6,450,116	09-2002	Noble et al.			
	AI	4,605,447	08-1986	Brotherton et al.			
	AJ	6,207,586	03-2001	Ma et al.			
	AK	5,837,592	11-1998	Chang et al.			
	AL	5,334,554	08-1994	Lin et al.			
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AM						
	AN						
	AO						
	AP						
	AQ						
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	AR						
	AS						
	AT						
EXAMINER				DATE CONSIDERED			
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>							

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2438	SERIAL NO. PRIORITY 09/602,381			
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Micron Technology, Inc.				
				FILING DATE PRIORITY June 22, 2000		GROUP PRIORITY 2815		
U.S. PATENT DOCUMENTS								
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
	AA	6,297,162	10-2001	Jang et al.				
	AB	6,436,771 B1	08-2002	Jang et al.				
	AC	6,413,881	07-2002	Aronowitz et al.				
	AD	6,110,780	08-2000	Yu et al.				
	AE	5,861,651	01-1999	Brasen et al.				
	AF	5,840,610	11-1998	Gilmer et al.				
	AG	5,500,380	03-1996	Kim				
	AH	6,410,991 B1	06-2002	Kawai et al.				
	AI	6,482,690 B2	11-2002	Shibata				
	AJ	6,492,690 B2	12-2002	Ueno et al.				
	AK	6,399,448	06-2002	Mukhopadhyay +				
	AL							
FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AM							
	AN							
	AO							
	AP							
	AQ							
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)								
	AR							
	AS							
EXAMINER				DATE CONSIDERED				
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>								